Carney, Jonathan W <jonathan.w.carney@wv.gov>

RE: [EXT] The Chemours Company FC, LLC - Chemours Belle Plant

1 message

Young, Michelle L <MICHELLE.L.YOUNG@chemours.com> Mon, May 23, 2022 at 10:35 AM
To: "Carney, Jonathan W" <jonathan.w.carney@wv.gov>
Cc: "Rine, Ashley B" <ASHLEY.B.DELANCY-RINE@chemours.com>

Johnathan,

Neither one of the those pieces of equipment have opening to the atmosphere, so they do not have any emission that could trigger the R13 permitting requirements. Also, I do not see any R13 records for either of those pieces of equipment.

Michelle L. Young, MS, CHMM
Senior Environmental Competency Leader - RC14001 Leader

On-Site Office Hours:

Mondays 7-3:30

Wednesdays 7-3:30

+1 304 357 1319 **o**
+1 304 542 6697 **m**

The Chemours Company
901 W. DuPont Avenue
Belle, WV 25015

LinkedIn | Twitter | Chemours.com | 10x2030

From: Carney, Jonathan W <jonathan.w.carney@wv.gov>
Sent: Friday, May 20, 2022 3:34 PM

To: Young, Michelle L <MICHELLE.L.YOUNG@chemours.com>
Cc: Rine, Ashley B <ASHLEY.B.DELANCY-RINE@chemours.com>
Subject: [EXT] The Chemours Company FC, LLC - Chemours Belle Plant

External email. Confirm links and attachments before opening.

Hello Michelle,

The year installed changed for DMS 003 Heat Exchanger from 1987 to 2011. The year installed changed for DMS014 Separator from 1978 to 2013. Did each of these units have permit determinations that they did not need to be permitted through Rule 13 New Source Review permitting? Please explain why these units do not need a Rule 13 permit.

Sincerely

Jonathan Carney

--

Jonathan Carney, P.E.

Environmental Protection

NSR/Title V Air Permitting

(304) 926-0499 ext 41247

Jonathan.W.Carney@wv.gov

601 57th St SE

Charleston, WV 25304

Carney, Jonathan W <jonathan.w.carney@wv.gov>

RE: [EXT] Chemours - Belle Title V Renewal Application questions

1 message

Young, Michelle L <MICHELLE.L.YOUNG@chemours.com> Wed, May 18, 2022 at 7:17 AM
To: "Carney, Jonathan W" <jonathan.w.carney@wv.gov>
Cc: "Rine, Ashley B" <ASHLEY.B.DELANCY-RINE@chemours.com>

Johnathan,

DME027 should be removed. It is a carbon filter that was removed from service.

For the changes to PTE, the renewal application we submitted in 2016 included methylamines and Methylamides. On January 1, 2020, those units were sold to Belle Chemical company and the permit was split and part of it issued to them. So the 2021 PTEs no longer include the methylamines and Methylamides emissions.

For the control devices, there are no new ones.

COFLARE, DMSCD01, DMSCD02, DMSCD03 and DMSCD04 are all in the current permit and have been since we first received Title V.

Please let me know if you have any other questions. Feel free to give me a call if you think that would easier.

Thanks,

Michelle L. Young, MS, CHMM
Senior Environmental Competency Leader - RC14001 Leader

On-Site Office Hours:

Mondays 7-3:30

Wednesdays 7-3:30

+1 304 357 1319 **o**
+1 304 542 6697 **m**

The Chemours Company
901 W. DuPont Avenue
Belle, WV 25015

From: Carney, Jonathan W <jonathan.w.carney@wv.gov>
Sent: Tuesday, May 17, 2022 3:36 PM
To: Young, Michelle L <MICHELLE.L.YOUNG@chemours.com>
Cc: Rine, Ashley B <ASHLEY.B.DELANCY-RINE@chemours.com>
Subject: [EXT] Chemours - Belle Title V Renewal Application questions

Hello Ms. Young,

I am currently reviewing your renewal application and I need a few clarifications.

Please explain the changes in Potential To Emit for CO, NOx, PM2.5, PM10, TSP, SOs, VOC, Methanol, Dimethyl Sulfate, and Total HAPs.

DME027 is not listed in the application. Did you want it removed from the permit? If so, please, explain why it is being removed.

Are you requesting new emission units to be included in the permit? It appears you have listed new air pollution control devices. Have these new devices been included in any R13 permits.

Sincerely,

Jonathan Carney

--

Jonathan Carney, P.E.

Environmental Protection

NSR/Title V Air Permitting

(304) 926-0499 ext 41247

Jonathan.W.Carney@wv.gov

601 57th St SE

Charleston, WV 25304

CERTIFIED MAIN 70180360000117694786 EC#2841

The Chemours Company FC, LLC
901 W. DuPont Ave.
Belle, WV 25015-1555

Received
August 12, 2021
WV DEP/Div of Air Quality

Director
Division of Air Quality
WV Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

RE: DuPont Belle Plant Title V Permit Renewal Application
R30-03900001 Group 5 of 5

Dear Director,

Please find enclosed the confidential renewal application materials for R30-03900001 Group 5 of 5. Chemours' non-confidential and redacted parts of the application were emailed.

If there are any questions on comments, please contact me at (304) 357-1498.

Sincerely,

Michelle L. Young

Michelle L. Young, MS, CHMM
Sr. Environmental Competency Leader

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

Received
August 12, 2021
WV DEP/Div of Air Quality

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
The Chemours Company FC, LLC

2. Facility Name or Location:
Chemours Belle Plant

3. DAQ Plant ID No.:
0 3 9 — 0 0 0 0 1

4. Federal Employer ID No. (FEIN):
911077773

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? Before 1970
☒ Permit Renewal — What is the expiration date of the existing permit? 2/13/2022
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☐ Corporation ☐ Governmental Agency ☒ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____
_____
_____

8. Number of onsite employees:
250

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☒ Yes ☐ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 901 W DuPont Avenue		
City: Belle	**State:** WV	**Zip:** 25015-
Telephone Number: (304) 357-1000	**Fax Number:** ( ) -	

12. Facility Location		
Street: 901 W DuPont Avenue	**City:** Belle	**County:** Kanawha
UTM Easting: 451.90 km	**UTM Northing:** 4232.60 km	**Zone:** ☒ 17 or ☐ 18
Directions: US Route 60 exit, Right onto Dupont Avenue, left at plant gate entrance		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☐ Yes ☒ No		**If yes, name the affected state(s).**
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**
[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*		

13. Contact Information		
Responsible Official: Ashley B. Rine		**Title:** Plant Manager
Street or P.O. Box: 901 W DuPont Avenue		
City: Belle	**State:** WV	**Zip: 25015-**
Telephone Number: (304) 357-1200	**Fax Number:** ( ) -	
E-mail address: Ashley.B.Delancy-Rine@chemours.com		
Environmental Contact: MIchelle Young		**Title:** Sr. Env Competency Leader
Street or P.O. Box: 901 W DuPont Avenue		
City: Belle	**State:** WV	**Zip: 25015-**
Telephone Number: (304) 357-1319	**Fax Number:** ( ) -	
E-mail address: Michelle.L.Young@chemours.com		
Application Preparer: Michelle Young		**Title:** Sr. Env Competency Leader
Company: Chemours		
Street or P.O. Box: 901 W DuPont Avenue		
City: Belle	**State:** WV	**Zip: 25015-**
Telephone Number: (304) 357-1319	**Fax Number:** ( ) -	
E-mail address: Michelle.L.Young@chemours.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Chemicals	VAZO, Glycolic Acid, dimethyl ether, dimethyl sulfate	325199	2869

Provide a general description of operations.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A.**

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B.** For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C.** Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☒ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☒ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☒ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
☐ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

☐ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

see current permit

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

see current permit

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F.**

20. Facility-Wide Applicable Requirements *(Continued)* - *Attach additional pages as necessary.*

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

see current permit

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

see current permit

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F.**

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2284	MM/DD/YYYY	
R13-914	/ /	
CO-R27-91-40A	/ /	
CO-R21-97-31	/ /	
CO-R27-92-45A	/ /	
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
	MM/DD/YYYY	
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions (tpy)
Carbon Monoxide (CO)	1.0
Nitrogen Oxides (NO_X)	1.7
Lead (Pb)	0.0001
Particulate Matter ($PM_{2.5}$)[1]	0.011
Particulate Matter (PM_{10})[1]	0.071
Total Particulate Matter (TSP)	0.082
Sulfur Dioxide (SO_2)	0.01
Volatile Organic Compounds (VOC)	462.0
Hazardous Air Pollutants[2]	Potential Emissions (tpy)
Methanol	4.0
Dimethyl Sulfate	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1] $PM_{2.5}$ and PM_{10} are components of TSP.
[2] For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☐	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☒	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☐	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☒	33.	Hydraulic and hydrostatic testing equipment.
☒	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

24. Insignificant Activities (Check all that apply)		
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☒	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☒	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☒	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☒	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☐	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**. – N/A
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**. – N/A

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Ashley B. Rine	Title: Site Manager

Responsible official's signature:

Signature: Ashley B Rine Signature Date: 8/11/2021

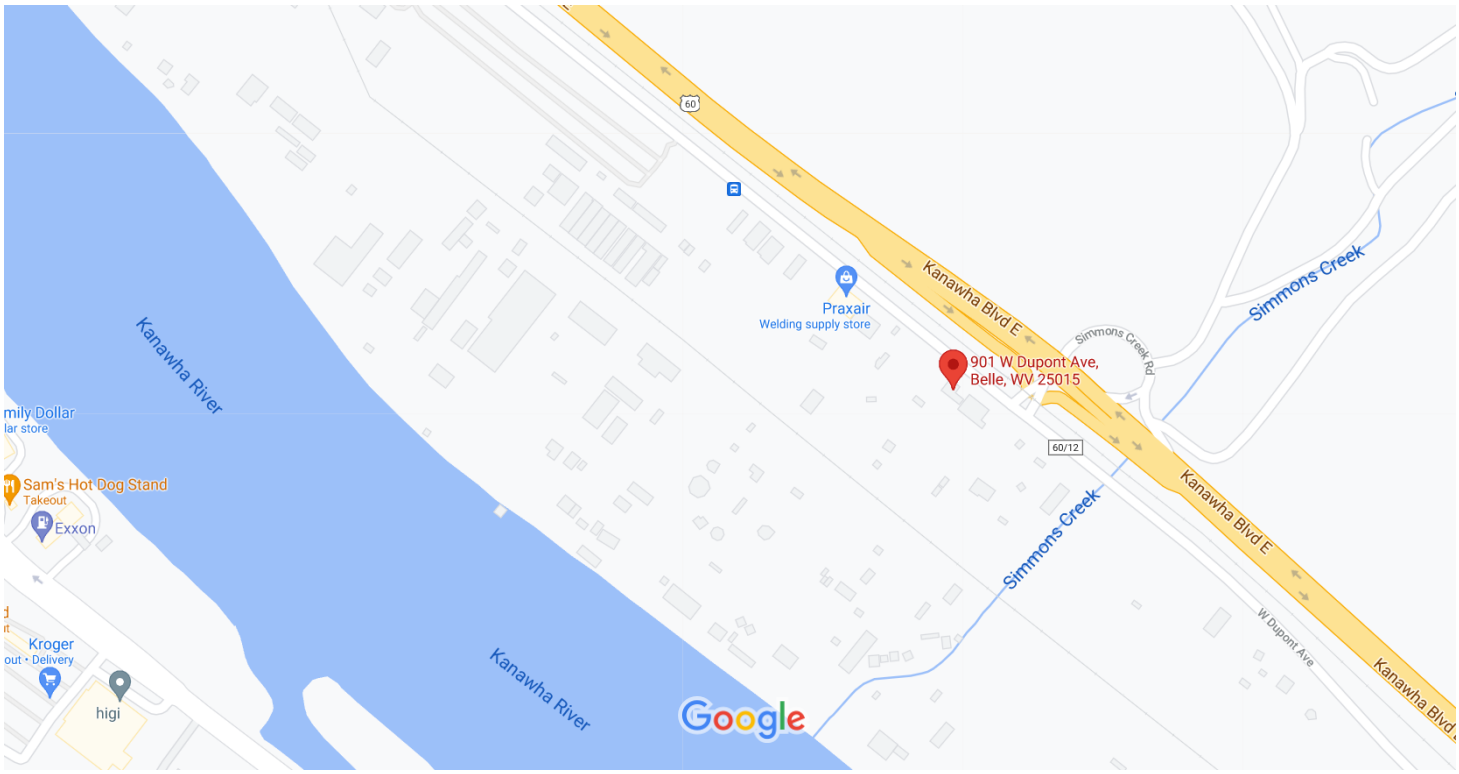
(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Google Maps 901 W Dupont Ave



Map data ©2021 Google 200 ft

901 W Dupont Ave

Building

Directions Save Nearby Send to your phone Share

901 W Dupont Ave, Belle, WV 25015

Photos

A-2570

TO CHARLESTON

CONRAIL RAILROAD

RIGHT OF WAY LINE

RIGHT OF WAY LINE

BUS LOADING

WEST VIRGINIA STATE HIGHWAY 60/12

ENTRANCE

EXIT

DUPONT AVENUE

CONCRETE ROAD 20' WIDE

PARKING AREA LOT "A"

RAILWAY

SIDEWALK

FLAG POLE

BL.22

BL.76

VISITOR PARKING

EMISSION UNIT GROUP No. 00W

CONTROL LABORATORY BL.171

EMISSION UNIT GROUP No. 002

STACK LOCAL ID 213.001

STACK LOCAL ID 213.006

STACK LOCAL ID 213.007

STACK LOCAL ID 215.001

CHILLER UNIT

CAUSTIC

BRINE

BL.369

BLDG.360

BAT. AC.

STACK LOCAL ID 217.003

CONTROL EQUIPMENT LOCAL ID No. 002

SUBSTATION #14

SCAFFOLD LAYDOWN AREA

STACK LOCAL ID 121.001

EMISSION UNIT GROUP No. 005

BL.295

BL.70A SHOP STORAGE SHED

SERVICE BL.88

TEL BLDG. 370

BLDG. 352

TANK TRAILER PARKING

SHOP & STOREROOM BL.70

CONC. PAD

LOADING DOCK

MAINLINE

MAINLINE

R. R. SCALES/BLDG. 136

SHEET NO. 2 FOR LINE MATCH

KUREHA BOUNDARY LINE

KUREHA BOUNDARY LINE

KUREHA LOAD RACK

E-2

E-1

KUREHA TRAILER

KUREHA TRAILER

KUREHA

KUREHA

KUREHA BOUNDARY LINE

KUREHA BOUNDARY LINE

KUREHA BOUNDARY LINE

KUREHA STORM WATER RETENTION

BL.298 CAFE

BL.172

BL. 353

IDLE FLYASH SILO

BL.135

POWER HOUSE OFFICE AREA

STACK LOCAL ID 611.009

STACK LOCAL ID 611.011

POWER HOUSE BL.161

STACK LOCAL ID 611.010

EMISSION UNIT GROUP No. 00B

OFFICE BLDG. BL.336

STOR & UNLDG. AREA

CCR

BL.342 #8 ECR

TURBINE ROOM

#7 BANK

FILTERED WATER PLANT BLDG. 85

OLD 36" (2)

42

43

TRUCK TRAILER PARKING

BL.303 NO.2 TRUCK SCALE

SEE DET. (24924) SECT. B-B

BL.322 FIRE STATION

MANAGEMENT & SAFETY OFFICE BL.243

PRAXAIR CCR OFFICES BL.349

CO MFG. UNIT OWNED AND OPERATED BY PRAXAIR

PRAXAIR BL.350/354

EMISSION UNIT GROUP No. 000

STACK LOCAL ID 209.001

20' ASPHALT ROAD

CONTROL EQUIPMENT ID No. 008

EMISSION UNIT GROUP No. 00D AND EMISSION UNIT GROUP No. 00E

TRUCK SPOT

BL.147

74/76

DMS CCR BL.146

COORDINATES: LAT. 4,232, 629 X LONG. 451, 495

TRUCK SPOT

STACK LOCAL ID No. 451.003

SO3 DMS TANK FARM BL.317

STACK LOCAL ID 451.002

NO.4.3 SPHERE BL.269

NO.1 SPHERE BL.274

EMISSION UNIT GROUP No. 001 STACK LOCAL ID No. 424.007

TANK FARM BL.250

TRUCK SPOT #27

EMISSION UNIT GROUP No.'s 00F, 00G, AND 00H

AMINI0123

ASSOCIATED WITH EMISSION UNIT GROUP No. 007

MMA STG. BL.315

ASSOCIATED WITH EMISSION UNIT GROUP No. 009

SAFETY OFFICE BL.337

DELUGE VALVE HOUSE BLDG.57

BL.363

NITROGEN PLANT

BL.355

ASPHALT ROAD

BL.40

ASSOCIATED WITH EMISSION UNIT GROUP No. 00H

N2 UNIT OWNED & OPERATED BY PRAXAIR

BL.351 O.S.L. SHOP

BLDG 351A

EXCITER HOUSE

PCB STORAGE BLDG. 357

RCRA STAGING BL. 348

PIPE SKETCHERS BL.327

ASPHALT ROAD

MCC BL.7

BL.143

TRUCK FILLING

FOR DOCKING FACILITIES BLDG. 190-SEE A-620

FOR DOCKING FACILITIES-BLDG.273-SEE E-588

BLDG. 229 FIRE WATER PUMP HOUSE #5

CONC. PAD

CONC. TRENCH #96084

WIER

KANAWHA RIVER

BLDG. 7 FIRE WATER PUMP HOUSE #1

#1 FIRE PUMP

EMISSION UNIT GROUP FP01 & FP01L

41°

PLANT COORDINATE NORTH

TRUE NORTH

CHEMOURS BELLE PLANT
PLOT PLAN
TITLE V OPERATING PERMIT APPLICATION

DRAWN BY	D.S.C. /P.E.P.	DATE 7/15/96
CHECKED BY	P.E. PENNINGTON	DATE 1/28/02
APPROVED BY	J.M.G.	DATE 1/28/02
SCALE	1" = 50'	

BELLE PLANT | A-2570

LATEST REVISION DATE: 1/28/02 BY: PEP

REFERENCE MAP : B-1813 PLOTTED - 1-28-02

Emission Unit ID	Emission Point ID	Internal Equipment Description	Emission Unit Description	Design Capacity	Year Installed	Control Device	Comments
DME010	451.100	[redacted]	Tank	[redacted]	1940	DMSCD01	
DME020	451.100		Reactor		1999	DMSCD01	
DME021	451.100		Vaporizer		1998	DMSCD01	
DME022	451.100		Heat Exchanger		1989	DMSCD01	
DME023	451.100		Heat Exchanger		1978	DMSCD01	
DME024	451.100		Filter		1960	DMSCD01	
DME025	451.100		Heater		2005	DMSCD01	
DME026	451.100		Heater		2005	DMSCD01	
DME040	451.100		Tank		1969	DMSCD01	
DME041	451.100		Condenser		1996	DMSCD01	
DME042	451.100		Condenser		1996	DMSCD01	
DME030	451.100		Column		1999	DMSCD01	
DME031	451.100		Filter		2001	DMSCD01	
DME032	451.100		Filter		2001	DMSCD01	
DME033	451.100		Heat Transfer Vessel		1963	DMSCD01	
DME034	451.100		Condenser		2001	DMSCD01	
DME035	451.100		Condenser		2001	DMSCD01	
DME036	451.100		Cooler		1975	DMSCD01	
DME037	451.100		Condenser		2009	DMSCD01	
DME050	451.100		Column		1996	DMSCD01	
DME051	451.100		Condenser		2002	DMSCD01	
DME052	451.100		Heat Exchanger		1980	DMSCD01	
DME053	451.100		Reflux Drum		1976	DMSCD01	
DME056	451.100		Cooler		2005	DMSCD01	
DME07	451.100		Tank		1966	DMSCD01	
DME08	451.100		Tank		1974	DMSCD01	
DME09	451.100		Tank		1967	DMSCD01	
DME10	451.100		Tank		1978	DMSCD01	
DME11	451.100		Filter		1986	DMSCD01	
DME12	451.100		Filter		1986	DMSCD01	
DME13	451.100		Product Loading		pre-1966	DMSCD01	
DME14	451.2		Tank		2002	None	
***	209.1	CO Plant	CO Plant	3MM	1987	CO FLARE	
CONTROL DEVICES							
DMSCD01	451.100	DMS Flare	Flare	5400 SCFH	2000		

Emission Unit ID	Emission Point ID	Internal Equipment Description	Emission Unit Description
DMS001	451.002	[redacted]	Tank
DMS002	451.003		Tank
DMS003	451.003		Heat Exchanger
DMS004	451.003		Filter
DMS005			Tank
DMS006			Heat Exchanger
DMS007	451.100		Reactor
DMS008	451.100		Tank
DMS009	451.100		Eductor
DMS010	451.100		Tank
DMS011	451.100		Eductor
DMS012	451.200		Kettle
DMS013	451.200		Tank
DMS014	451.200		Separator
DMS015	451.200		Heat Exchanger
DMS016	451.200		Separator
DMS017	451.200		Vacuum Jet
DMS018	451.200		Condenser
DMS019	451.200		Condenser
DMS020	451.200		Condenser
DMS021	451.100		Tank
DMS022	451.100		Tank
DMS023	451.100		Tank
DMS024	451.100		Tank
DMS025	451.300		Tank
DMS026	451.100		Tank
DMS027	451.100		Filter
DMS028	451.100		Separator
DMS029	451.100		Loading Racks
CONTROL DEVICES			
DMSCD04	451.002		Demister
DMSCD03	451.002		Scrubber
DMSCD02	Emergency Back-up and Personnel Protection Only		Mist Eliminator
DMSCD01	451.100	DMS Flare	Flare

Design Capacity	Year Installed	Control Device	Comments
[redacted]		DMSCD03	
	1978	DMSCD04	
	1978	None	
	2011	None	
	1981	None	
	1978	None	
	2000	None	
	2000	DMSCD01	
	1978	DMSCD01	
	2000	DMSCD01	
	1989	DMSCD01	
	2000	DMSCD01	Removed
	1978	None	Removed
	1978	None	
	2013	None	Replaced
	1978	None	
	1966	None	
	2000	None	
	2000	None	
	2000	None	
	2000	None	
	2015	DMSCD01	Replaced
	1937	DMSCD01	
	1978	DMSCD01	
	1978	DMSCD01	
	2000	None	
	1983	DMSCD01	
	1975	DMSCD01	
	1983	DMSCD01	
	pre-1966	DMSCD01	
	2017		Replaced
	1983	DMSCD04	
	2020		Replaced
5400 SCFH	2000		

ATTACHMENT E - Emission Unit Form

Emission Unit Description	Linde CO Plant (209.001)	
Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
***	CO Plant	COFLARE

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

0

Manufacturer:	**Model Number:**	**Serial Number:**
	0	0
Construction Date:	**Installation Date:**	**Modification Date:**
	1987	0

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

3MM

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		0

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? x Yes ___No	**If yes, is it?** ___Indirect Fired x Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**
0	0 0

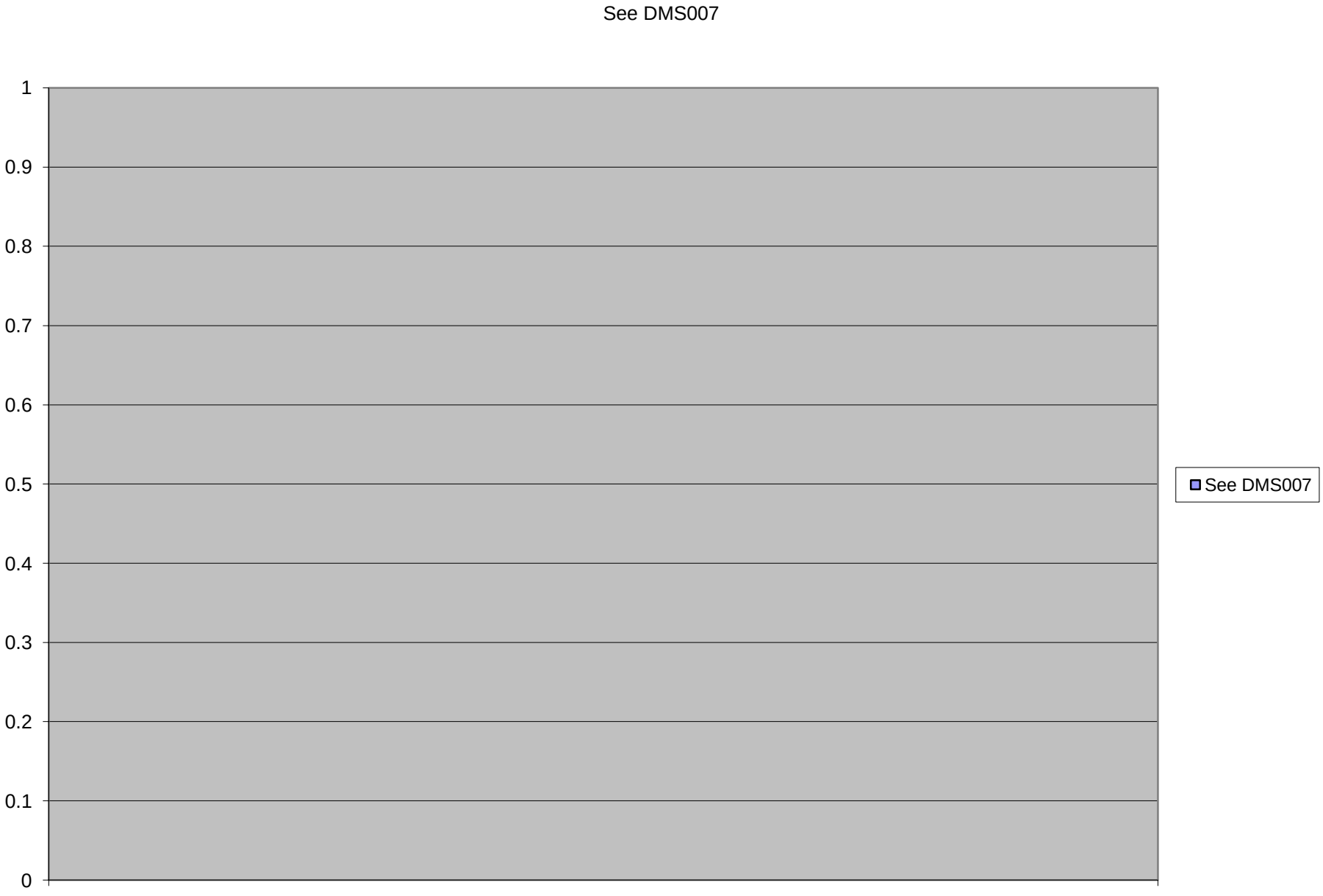
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas	0	0
0	0	0

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0	0	0
0	0	0	0

Emissions Data


See DMS007
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
See DMS007

Emission Unit ID	Emission Point ID	Equipment Description (internal)	Emission Unit Description	Design Capacity	Year Installed	Control Device	Emission Unit ID	Emission Unit Description	Emission Unit Name

Emission Unit ID	Emission Point ID	Equipment Description (internal)	Assoc. Control Devices	Description	Manufacturer	Model Number	Serial Number

Emission Unit ID	Emission Point ID	Equipment Description (internal)	Construction Date	Installation Date	Modification Date	Design Capacity	Maximum Hourly Throughput	Maximum Annual Throughput	Maximum Operating Schedule

ATTACHMENT E - Emission Unit Form

Emission Unit Description Tank		
Emission unit ID number: **DME10**	**Emission unit name:** REDACTED	**List any control devices associated with this emission unit:** DMSCD01
Provide a description of the emission unit (type, method of operation, design parameters, etc.): 0		
Manufacturer: Chattanooga Boiler Co.	**Model Number:** 0	**Serial Number:** 0
Construction Date: 0	**Installation Date:** 1978	**Modification Date:** 0
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): REDACTED		
Maximum Hourly Throughput: 3000 gal	**Maximum Annual Throughput:** 26280000 gal	**Maximum Operating Schedule:** 0
Fuel Usage Data **(fill out all applicable fields)**		
Does this emission unit combust fuel? ___Yes ___No		**If yes, is it?** ___Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 0		**Type and Btu/hr rating of burners:** 0 0
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each. 0 0 0 0 0 0		

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
0	0	0	0
0	0	0	0

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See DMS007	0
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See permit R30-03900001

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See permit R30-0390001

Are you in compliance with all applicable requirements for this emission unit? _X_Yes __No

If no, complete the **Schedule of Compliance Form as ATTACHMENT F.**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0	5
Nitrogen Oxides (NO_X)	0	0
Lead (Pb)	0	0
Particulate Matter ($PM_{2.5}$)	0	0
Particulate Matter (PM_{10})	0	0
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO_2)	0	0
Volatile Organic Compounds (VOC)	0	0

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
#REF!		

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See permit R30-03900001

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See permit R30-0390001

Are you in compliance with all applicable requirements for this emission unit? _X_Yes __No

If no, complete the **Schedule of Compliance Form as ATTACHMENT F.**

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: COFLARE	**List all emission units associated with this control device.** Linde CO Plant	
Manufacturer: McGill Industries	**Model number:** BFT 16 Flare	**Installation date:**

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	__ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_x__ Flare	___ Internal Floating Roof
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
CO	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Heat value and velocity of gas.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification. This control device is subject to the monitoring requirements of the MON. Emissions from this unit are below defined level for major source.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Amount of CO sent to flare and number of hours per day CO is sent to the flare.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: DMSCD01	**List all emission units associated with this control device.** DMS007-DMS011, DMS021-DMS024, DMS026-DMS029, DME07-DME056	
Manufacturer: John Zink	**Model number:**	**Installation date:** 2000

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	__ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_x__ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Methanol	100%	98%
DME	100%	98%
DMS	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Total Heat Value = 5.5 MMBTU/hour
Natural Gas Flow to Flare = 700 SCFH

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification. This control device is subject to the monitoring requirements of the MON. Emissions from this unit are below defined level for major source.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Flame presence

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: DMSCD02	**List all emission units associated with this control device.** DMS001	
Manufacturer: R-V Industries Inc	**Model number:**	**Installation date:** 2020

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber __ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare __x_ Mist Eliminator

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
SO3	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification. This control device is subject to the monitoring requirements of the MON. Emissions from this unit are below defined level for major source.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: DMSCD03	**List all emission units associated with this control device.** DMS001	
Manufacturer: Alloy Fabricators	**Model number:**	**Installation date:** 1983

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	_X_ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (Describe)
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
SO3	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification. This control device is subject to the monitoring requirements of the MON. Emissions from this unit are below defined level for major source.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The pressure on the SO3 Storage Tank and Acid Strength in the Acid Tank are monitored to indicate performance of the Scrubber.

Formatted Table

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: DMSCD04	**List all emission units associated with this control device.** DMS001	
Manufacturer: Chemours	**Model number:**	**Installation date:** 2017

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber __ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare _x__ Demister

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
SO3	100 %	

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification. This control device is subject to the monitoring requirements of the MON. Emissions from this unit are below defined level for major source.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Visual emissions conducted on the exit of the Brinks Demister monthly.

CO Flare Process Description

Carbon monoxide ("CO") is produced by Linde (formerly "Praxair, Inc") [redacted] The Praxair operation is covered under a separate air permit. Chemours and Belle Chemical Company (BCC) are the customers for the CO product. CO is supplied to Chemours process areas as raw material feedstock to the Glycolic Acid (GA) unit. CO is supplied to BCC process areas as a raw material feedstock to the Monomethyl Formamide (MMF) and Dimethyl Formamide (DMF) units. When CO is not being charged to either the Chemours or BCC process areas, excess CO is vented to a flare (emission point 209.001).

This CO production unit is covered under two separate DEP air permits. The raw material feeds and production of CO is covered under the R13-891 issued to Praxair (now Linde). The flaring of excess CO is covered under the R13-914 permit for Chemours.

There are three types of scenarios involved in the venting of CO to the flare (see Emission Calculation worksheet).

Scenario 1

The first scenario is the venting at a normal CO production rate with no consumption to the process units (GA, MMF or DMF). It is projected that the maximum occurrence of this scenario would be 24 hours per year. The potential to emit for "uncontrolled" emissions of CO is 9,749 PPH and 117 TPY. The potential to emit for "controlled" emissions of CO is 234 PPH and 0.12 TPY.

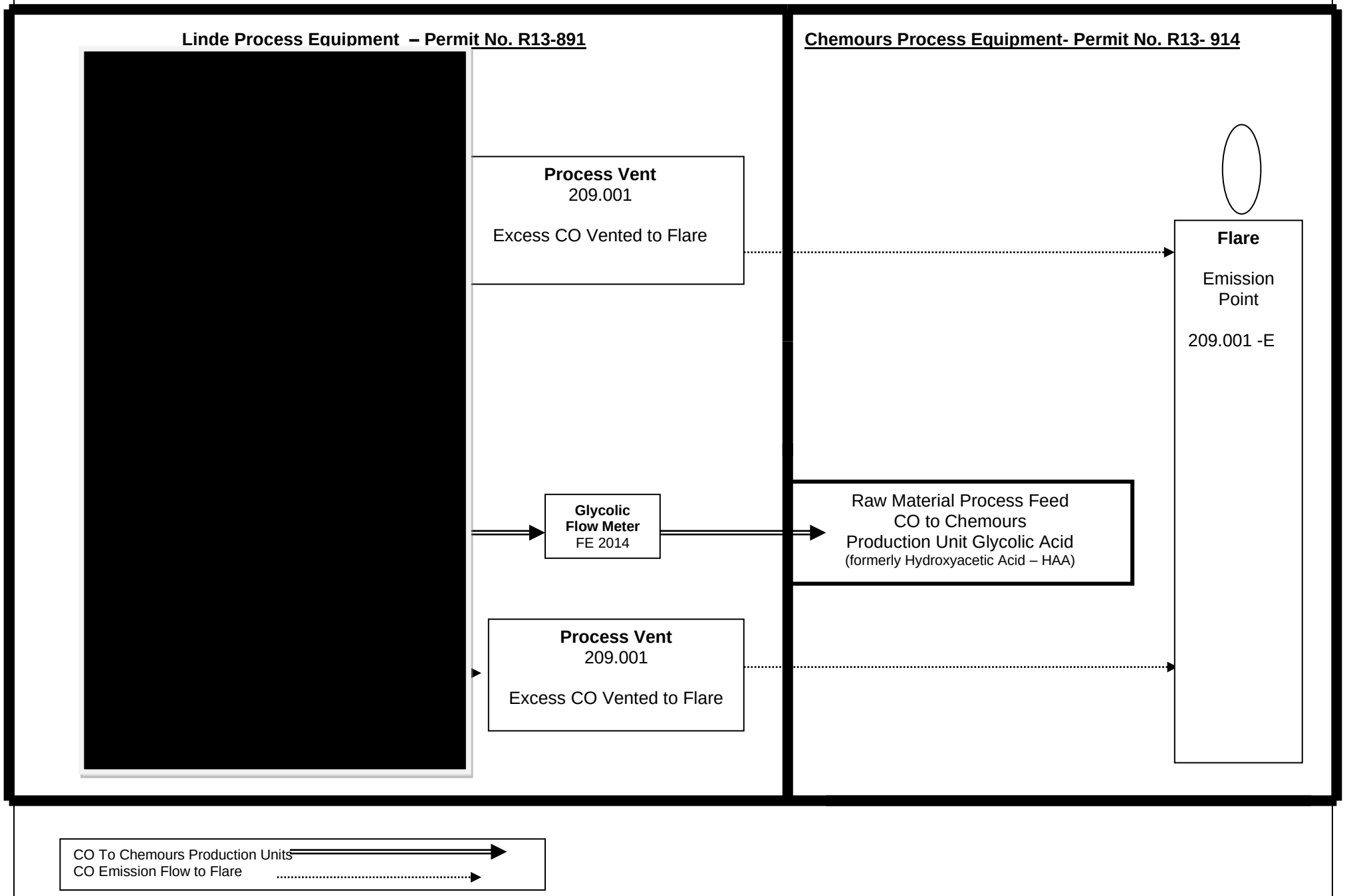
Scenario 2

The second scenario is when minimum CO is produced with only one process unit consuming CO. This scenario would be only one process unit (GA, MMF or DMF) is operating. It is projected that the maximum occurrence of this scenario would be 8592 hours per year. The potential to emit for "uncontrolled" emissions of CO is 975 PPH and 4,188 TPY. The potential to emit for "controlled" emissions of CO is 1.0 PPH and 4.19 TPY.

Scenario 3

The third scenario is when two process units are consuming CO at normal operating rates. This third scenario would either involve GA and MMF or GA and DMF (MMF and DMF do not run simultaneously). It is projected that the maximum occurrence of this scenario would be 5,256 hours per year. The potential to emit for "uncontrolled" emissions of CO is 1,170 PPH and 3,075 TPY. The potential to emit for "controlled" emissions of CO is 1.2 PPH and 3.07 TPY.

Chemours Belle Plant
Process Flow Diagram – Carbon Monoxide Flare Stack



Maximum Potential to Emit Emissions

The maximum potential to emit (PTE) for emissions involve two different scenarios (Scenario 1 and Scenario 2). The maximum PTE for “uncontrolled” emissions is 9,749 PPH under operating Scenario 1 and 4,188 TPY under operating Scenario 2. The maximum PTE for “controlled” emissions is is 9.8 PPH under operating Scenario 1 and 4.24 TPY under operating Scenario 2. (The “controlled” maximum potential emissions include emissions from the combustion of natural gas.)

Dimethylether (DME) is manufactured by Chemours at the Belle, WV site and is sold into the aerosol market. DME is used as an intermediate for the manufacture of Dimethylsulfate. About 1/3 of DME produced is used at the adjacent DMS process. DME is shipped under its own vapor pressure (50-100 psig) as a liquefied flammable gas in thirty-three thousand gallon tank cars and in four thousand gallon tank trucks to aerosol customers.

The DME process is divided into three distinct operations. They are Synthesis, Refining, and Storage and Handling.

1.1 SYNTHESIS

[redacted]

1.1 SYNTHESIS (Continued)

[redacted]

1.2 REFINING

[redacted]

[redacted]

[redacted]

1.3 STORAGE AND HANDLING

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

1.3 STORAGE AND HANDLING (Continued)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

[redacted]

1.4 VENT SYSTEM

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Chemours™

Belle Plant

REDACTED

DME Process Flow Diagram
Procedure Number: DME-130

Copy No.: 1
Revision No.: 0

Authorized By:	Carl Burgazli (Signature on File)	Authorized Date:	11/18/2020
Title:	(DME/DMS Area Manager)	Next Review Date:	11/18/2023

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION

1.1 OVERVIEW

Products

Dimethyl Sulfate (DMS) is manufactured by Chemours at the Belle, West Virginia site only.

The chemical composition is $(CH_3O)_2\ SO_2$.

The chemical structure looks like this:

```
      H         O         H
      |         ||        |
H  -  C  -  O  -  S  -  O  -  C  -  H
      |         ||        |
      H         O         H
```

Dimethyl Sulfate is a highly active methylating agent and is used in the manufacture of products for various industries. These include vanilla for the food industry, insecticides, pharmaceuticals, used as an intermediate for caffeine and codeine, dye intermediates, photographic chemicals, finishes and a variety of organic chemicals.

Dimethyl Sulfate is normally a clear, water-white liquid with a high boiling point and a specific gravity heavier than water. This chemical is toxic and has no characteristic odor warning property. Both the liquid and vapor cause severe burns to human tissue.

1.2 SO_3 STORAGE

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.2 SO_3 STORAGE (Continued)

[redacted]

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.2 SO3 STORAGE (Continued)

[redacted]

[redacted]

1.3 DMS CRUDE

Dimethyl Ether + Sulfur Trioxide ⟷ Dimethyl Sulfate

CH_3OCH_3 + SO_3 $(CH_3)_2SO_4$

[redacted]

[redacted]

[redacted]

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.3 DMS CRUDE (Continued)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.4 DMS REFINING

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.5 FLARE SYSTEM

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

SECTION 1. DIMETHYL SULFATE PROCESS DESCRIPTION (Continued)

1.6 DMS STORAGE FACILITIES

There are 2 DMS storage tanks (74 and 76) and 2 make tanks (70 and 72). Material can be loaded from all 4 tanks. All of the tanks have submerged pump use for transfers. They all vent to 79 tank then to the flare. They all have rupture disks that blow to 79 tank. 79 tank has a relief valve that blows to atmosphere.

Tank	Capacity
#70	11690 Gallons (129,668 lbs.)
#72	17700 Gallons (196,332 lbs.)
#74	33500 Gallons (371,589 lbs.)
#76	33500 Gallons (371,589 lbs.)

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Belle Plant - REDACTED

DMS Process Flow Diagram
Procedure Number: DMS-213

Copy No.: 1
Revision No.: 0

Authorized By:	Carl Burgazli (Signature on File)	Authorized Date:	11/18/2020
Title:	(DME/DMS Area Manager)	Next Review Date:	11/18/2023